MODERN MUSEUM METHODS

BY

S. H. Prater, C.M.Z.S.

Curator, Bombay Natural History Society

Part I

(*With six plates and five text figures*)

Since one of the main objects for which a Museum is established is the ' diffusion of instruction and rational entertainment among the mass of the people ', it follows that, apart from the purely scientific research and investigation which it carries out, the collections which are open to the public in its galleries, however rich, important and complete they may be, are only of real value to the extent to which they are made use of by the public and to the extent to which the public is able to benefit by the instruction and entertainment they are intended to afford.

Now the attitude of the public to the museum might often be expressed in the words of a certain New England farmer who, after enumerating the many virtues of his deceased wife, concluded by saying ' somehow I never liked the woman '. The public realizes more or less that the museum is an institution intended for its benefit but somehow does not like it. May not the reason for this attitude be explained by the fact that many museums are dehumanized institutions, completely lacking in attractiveness because of their unsympathetic treatment of the public and their unsympathetic methods of presenting their treasures ?

Shortly after arriving in New York, I read an article in one of the Sunday papers dealing mainly with the work the Museums were doing for the people of the country. ' In America to-day,' the writer pointed out, ' the Museum fills the role of educator, entertainer and nursery companion ; it has ceased to be a dusty warehouse of antiquities and has become a bright and cheerful instruction centre for the community.' After a few months spent working in and visiting many of the Museums in the country I realized more clearly the truth of his contention. Like everything else in American life, the Museum has developed into an institution with the motto ' service to the public '. The national spirit is expressing itself in these rapidly growing institutions—efficiency, gaiety, and democracy —these characteristics already differentiate the museums of America from those of other lands. One finds efficiency in their careful study of the comfort of the visitor while in the museum galleries and in their almost perfect methods of charting, casing, and labelling. One finds vividness and charm in their methods of exhibition, and democracy in the wide appeal they make to the public at large. Art and Science are learning to work together. The Science Museum calls on the artist for ' atmospheric effects of nature ' and the Art Museum looks to the scientist to arrange its treasures in some intelligible progression. The result is the creation of museums which are really attractive to the masses, of museums which look to and receive public support. The impression one receives is that these

museums are unique in their history, progress and purpose; they cannot be compared with kindred institutions in the old world. Their appeal is not so much to the advanced technician or craftsman as to the man in the street. Except in the case where qualified guides conduct parties of visitors over its galleries, the teaching of the museum is silent teaching, and to be successful this teaching demands an effort on the part of the visitor. How far is this effort forthcoming? Now one might say that 90 per cent. of the people who visit a museum visit it mainly for pleasure and with the majority the message, the museum has to offer, loses much of its meaning unless it can provide something which arouses and holds interest. To deluge people with facts and to offer too much to their attention results in getting very little of it. The story of the monkey who was unable to get his handful of nuts out of a jar until he had dropped some of them has its application here. The neck of the jar is as large as the public interest, no larger—to grab too much attention is to lose it. To get the public to look at and absorb what you offer you must drop some of the nuts. One cannot teach people by marshalling whole series of facts before them. It is the principles that matter; facts will soon be forgotten while the principles remain. In offering the visitor principles which are new and unknown to him it is necessary to commence with something that is familiar and known to him. Our understanding and acceptance of a thing depends much on what we already have in our consciousness. Introduce something which has no connection with our past experience and we are not interested. To hold our interest there must be a large ingredient of the familiar with the unfamiliar. Edward Fisher in speaking of museums and their work said, 'The great purpose of Museums is to stimulate the observant powers into action. The educational value of museums will be in exact proportion to their powers of creating new thoughts in the mind'.

The object of the museums is therefore to lead the people to better ideals and to offer them new view-points in a way which they can understand and appreciate. The appeal is made more to the senses than to the intellect but it is made in such a manner that in addition to mere attractiveness it offers food for thought which is the first step to a higher and more intellectual ideal.

There are many ways of telling the story of nature. Why not choose the beautiful way? The way which leads from an appreciation of its interest and its beauty to an understanding of its meaning. It is the method which will make the widest appeal. A second reason is the obtaining of public support. By giving the public something which it can understand and appreciate and something which it wants, the museums succeed in rousing its interest and ultimately its support. And in this the American Museums have been completely successful.

A study of the methods adopted by museums in the United States in serving their public would perhaps repay the Museums of other countries. The stress and strain of modern life, and the demand that it makes on the time and attention of the average wage-earner, does not leave much time for such side issues as Art and Natural History. It is a condition that is becoming increasingly prevalent not

only in America but also in the older countries. Dr. Van Straelen, the Director of the Natural History Museum, Brussels, with whom I discussed this aspect of the question believed that the democratic spirit of modern times necessitated a change in the attitude of museums. The old museums were aristocratic, their show galleries were merely in the nature of a concession, but modern conditions necessitated a change in this policy. The museums were becoming more and more dependent on public support, on money voted for them by the people's representatives, and unless museums did something for the people the money would not be forthcoming. 'Applied science will find its votaries and its supporters' continued the Doctor, 'but for pure science we will have increasing difficulty in finding money. We arrange our galleries on the plan of a text book where specimens, models and explanatory labels trace in outline the various classes of the animal kingdom. This type of exhibition was necessary and useful for the more serious students, but the great majority of our visitors are not serious students and for them we want something else. There must be some 'light houses' in a gallery to draw their attention and rouse their interest.'

At the Natural History Museum, Berlin, radical changes are being made in the character and nature of the exhibits. There, too, the museum is making a bid for popular interest and support by the introduction of methods of exhibition which appeal to the lay visitor. For if the institutions which stand for the cultural development of the people are to succeed in their mission, it has become necessary for them to alter their standards, to break down their aloofness and restraint—that attitude of mind which looks on the visiting public as something in the nature of a nuisance, and come down to a more sympathetic consideration of the people's wants. Some may object. Why appeal to peoples' wants? Their wants may be stupid, childish or even positively mischievous. What we must appeal to is their reason. Professor Overstreet in his interesting series of lectures on 'The Influencing of Human Behaviour' gives us the answer 'No appeal to reason can ever be successful if it is not also an appeal to a want'. An understanding and appreciation of the truth of this axiom will save much time in argument. If one of the main motives of a Museum is education not of the few but of the mass, and if this education is to be effective, it requires the rousing of the popular interest in its activities as a first step, and it is the duty of the Museum Director to make his museum worth being interested in, to give his museum such vitality and pertinence that people will want to be interested in it, will want to visit it, and will realize the necessity of supporting it, and though the people may want something quite inferior, his problem is to get them to want something worthwhile, and to give them the opportunity for these more worthwhile wants to multiply and grow.

I will now pass to a consideration of the methods adopted by Museums in the United States and on the Continent to attract and maintain public interest and support. The subject may be divided under two headings :

1. The Museum Galleries as a whole.
2. The nature and methods of arrangement of the exhibits.

1. General Treatment of Galleries

The principal factors which react on the mind of the visitor on entering a gallery are—

1. The architecture and colour of the walls and the show cases,
2. The show cases themselves and their general arrangement,
3. The exhibits.

The third factor being the most important, it necessarily follows that the first and second factor should be subordinate to the most effective presentation of the third.

We will leave the question of architecture aside for the present. The museum curator is rarely in a position to decide the architectural requirements of the building he is to use. The question of the colour of its walls is a matter which might easily come within his province to decide. It is not difficult to realize the importance of colour as a means of attraction. Even as children we were attracted rather by colour than by form. We retain this impulse throughout life, only we temper it by a new desire for a pleasing arrangement or harmony of colours. Our objective should therefore be a pleasing colour scheme, that harmonious blending of show cases and walls which will be most effective in the presentation of the exhibits shown in the gallery.

Colour Schemes.—As a general rule quiet colours should be utilized. The choice of colour will depend largely on the lighting of the room and the objects to be displayed, but the rule in its selection should be the avoidance of an obtrusive scheme which will draw to itself the attention of the visitor. At the Brooklyn Museum, the show cases and walls in the hall of Invertebrates were painted a bluish-grey ; the effect produced was restful and pleasing. In the Mammal Gallery at the Natural History Museum, Altona, Hamburg, the colouring of the walls and show cases was very harmoniously conceived. In the main Mammal Hall the walls had a 6′ 6″ dado of dusky slate blue relieved with a faint grey stripe, the upper portion of the wall was carried out in Rejane green [1] and the contrasting areas of colour were divided by narrow black lines, the pedestals of the show cases corresponded in colour to the dado, their upper framework was in black, while the backgrounds were grey stippled with green. In the Bird Gallery in the same museum the dado of the hall was in nickel green, the upper surface of the wall cream buff with a white area where the wall joined the ceiling. The pedestals of the show cases were treated in a similar tone of green as the dado, while their frames were black.

The selection of a colour scheme should be governed by the type of exhibit shown in the gallery. Certain exhibits require quiet tones, others more brilliant ones to give them their full significance, particularly where colour in the exhibits themselves is wanting. A rather daring and original colour scheme is to be seen in the Ethnological Gallery at the Brooklyn Museum. This hall is divided by its architecture into three sections, the columns supporting the ceiling forming the divisions. Each section is confined to illustrating the arts and crafts of a distinct race. In the first section the

[1] Ridgeway's Colour Standards, pl. xxxiii.

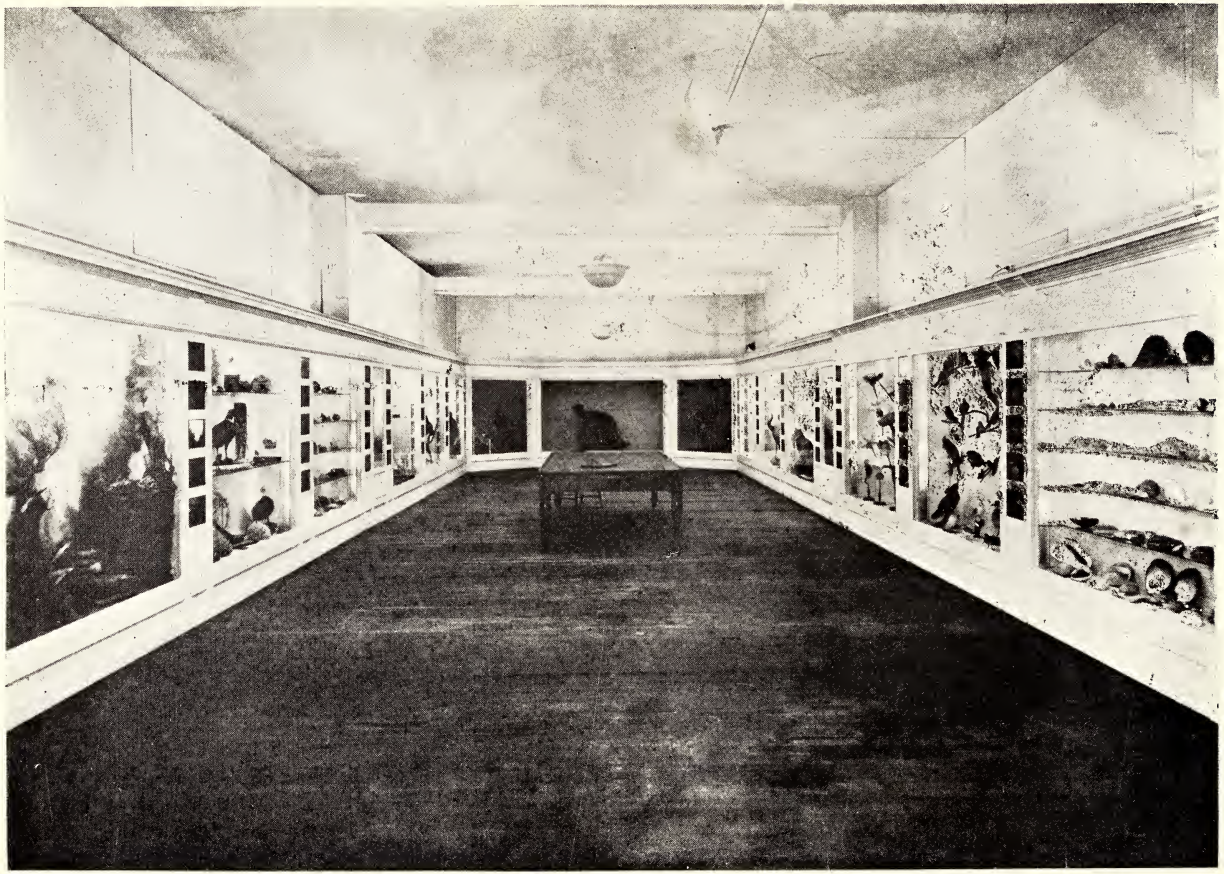
show cases were green, in the second royal blue and in the third rose pink. The plinths of the adjoining pillars were coloured to correspond with the show cases. Thus in the same hall one had three aisles of show cases painted in different colours. After passing through several galleries where drab or neutral tones predominated, this original colour scheme had the effect of renewing and re-arousing one's attention. The eye was greeted by something fresh and colourful and the effect was not unpleasing. Rejane green makes an excellent background for animals and birds. It is used in the galleries of the Munich Museum and is perhaps the most successful colour tone I have seen used in any Museum in connection with these types of exhibits.

Atmosphere.—The colouring of the walls and the show cases to produce a desired 'atmosphere' is another point which deserves consideration. In the Invertebrate hall at the Brooklyn Museum, where the majority of the exhibits were illustrative of life in the sea, the blue grey colouring of the walls gave a marine note to the gallery which was further accentuated by mural paintings depicting seascapes in various quarters of the globe. In the new Fish Hall at the American Museum, the colour of the walls is grey with a stippling of waved blue lines giving them a watery effect; the backgrounds of the cases against which the fishes are shown, had the same colour motif in a slightly darker tone, the whole object being to give a 'marine atmosphere' to the gallery. Artificial light through lanterns of greenish glass increased this effect. The whole question of the colour in a museum gallery is a phase of museum work which requires study, it is now in the experimental stage. It marks an advance in museum methods. Its object is to please and attract the visitor by creating an atmosphere which will produce a subtle reaction on his mind and in any way prepare him to enjoy and appreciate what he sees.

Mural Paintings.—A further development is the decoration of the walls with appropriate mural paintings. Many museums are now adopting this method of decorating their galleries. We find galleries of Art, Archæology, Geology, Ethnology, Zoology and Botany decorated in this manner. Apart from their purely decorative effect, murals have a distinct educational value. They are a clear and simple means of transmitting ideas—they are tools for communicating thoughts, stimulating interest and arousing feeling and emotions. Where a range of exhibits is shown which requires a mental effort on the part of the visitor to clothe them with the interest they merit, these pictures will supply the required stimulus —will supply vividness and drama to what might otherwise have been a barren theme. In the hall of the Age of Man in the American Museum, where the exhibits illustrate successive stages in the history of man, the dry bone atmosphere was to a large extent relieved by the beautiful murals adorning the walls of the gallery. The fleshless skull of the Cro-magnon man springs into life in the mural painting depicting the Cro-magnon artist at work painting his procession of mammoths in the cavern of Font-du Gaume in France. At Altona, Hamburg, the walls of the Bird Gallery were ornamented with paintings of individual birds or groups of birds; such subjects

By courtesy *Amer. Mus. Nat. Hist., New York.*

PART OF DOMED CEILING OF BIRD GALLERY, AMERICAN MUSEUM OF NATURAL HISTORY, NEW YORK.



By courtesy *Buffalo Soc. of Nat. Sciences.*

MODEL OF EXHIBITION HALL DESIGNED FOR THE NEW MUSEUM OF NATURAL SCIENCES, BUFFALO, NEW YORK.

as geese in flight or a soaring eagle gave a charming and appropriate setting to the exhibits. The vaulted ceiling of the Bird Gallery at the American Museum of Natural History is painted to represent a sunset sky against which we see various birds in flight—actual specimens are used and as these recede further into the distance they are substituted with painted birds, the gradation in size and the perspective is cleverly maintained and the effect altogether is realistic and charming. (*Vide* Plate 1).

There are certain points to be remembered in decorating the walls of a gallery with murals. Firstly, a mural must preserve the flatness of the wall it decorates. It should not mar the architectural lines or destroy the even level of the wall's surface by giving it an effect of contours. Mr. Charles Knight, one of the most successful animal painters in America told me that he preserved the desired flatness in his murals and yet gave them an effect of roundness by painting them always with the light coming up from behind, so that the objects were more or less silhouetted against the background and yet had a feeling of depth.

Then again as regards colour tones, these should always be ruled by the type of exhibit in the gallery. Where one is exhibiting skeletons or fossils and such like colourless material, a certain latitude in colouring is permissible but in a gallery where the exhibits are themselves colourful, restraint is necessary in the colour of the murals so that a harmonious effect might be obtained. In every case the murals should be a subordinate feature and should not become the centre of attraction. In the old African hall at the American Museum the murals illustrating scenes of African life were done completely in sepia. In the new Reptile Gallery which contains many beautiful and vividly coloured groups, the murals are being painted in quiet shades. Small colour sketches of these murals were first done to scale, subsequently a full sized copy was done on cheap muslin, this painting was fitted to the walls to see whether it harmonized or clashed with the exhibits ; certain colours were then reduced and other heightened till the desired effect was achieved. I have written at some length on this subject because I believe that our museum offers an excellent field to our school of mural painters in Bombay, it will afford them the opportunity of showing their skill to the people of their own city and of having their work exhibited where it will be seen by thousands. Natural History offers them an endless range of subjects while the Archæological and Art sections could also be made a venue for their skill.

Arrangement of Show Cases.—The second factor which draws the attention of the visitor on entering a gallery are the show cases and their arrangement. A gallery crowded with tall show cases whose massive wood work and external finish makes them unduly conspicuous carries with it a decidedly forbidding aspect—it creates a feeling of heaviness and artificiality which can be thoroughly depressing, and its effect upon the visitor is to repel rather than attract. The overcrowding of the gallery with show cases and the cases with exhibits appals the visitor who quickly realizes that he will never be able to absorb a tenth part of what is offered him.

The arrangement of the show cases and the type of show cases

to be used in a particular gallery will depend largely on the architectural features of the room, its lighting and the nature of the exhibits to be displayed, but the general attractiveness of the room and the effect of its arrangement upon the visitor is a point always to be seriously considered. The accompanying photograph (Plate II) illustrates a model exhibition hall designed for the new Buffalo Museum. It will be seen that the cases are let into the walls of the room—they are of the ' built in ' type, their breadth varies according to the nature of the exhibits to be displayed. In the present instance the cases along the sides are 18'' deep, those at the head of the gallery which are intended for groups are 6 feet deep. This is one method of arrangement which is very successful and very attractive. It gives an air of spaciousness even to a small room and is adaptable to any type of exhibit.

A second method of arrangement is seen in the new Reptile Hall in the American Museum. The floor of the gallery is occupied by a series of small metal-framed box cases none of them exceeding 4 feet in height, the walls on one side have a series of 'built in' groups (*vide* Plate III) while the opposite wall has a series of vertical cases arranged in the form of alcoves. The use of only low cases for the floor gallery is an advantage in that, there is nothing to obstruct the view of the visitor from the gallery as a whole and that atmosphere of cumbersomeness and artificiality produced by an assemblage of tall show cases is largely obviated. The use of the centre of the gallery for some artistic and dominating exhibit is an effective method of adding to its attractiveness. This is seen to good effect in the design for the new hall of African Mammals at the American Museum of Natural History, New York, where the central exhibit will take the form of a magnificent group of African Elephants mounted as a memorial to the late President Roosevelt. In the Mammal Gallery at the Altona Museum, the centre of the floor is occupied by the skeleton of a horse mounted on a high pedestal, the walls are lined with ' built in ' cases, while the main floor space is occupied by low box cases illustrating life histories of mammals.

It has been shown that by introducing the 'built in' type of show case, the necessity for large cases on the floor of a gallery, is largely obviated. High show cases on the floor of the gallery obtrude on the visitor and obstruct the view, while the use of the floor space for low cases only gives airiness and spaciousness to the hall and facilitates guarding. The arrangement of cases as alcoves while it is effective in focussing the attention of the visitor on one part of the gallery at a time, has the disadvantage of making the policing of a gallery difficult. The use of a prominent central exhibit acts as a ' light house ' to attract the visitor.

Show Cases.—In addition to the problem of attractiveness the Museum Curator has another problem—a very important problem —and that is the prevention of fatigue. The visitor sees the museum galleries not only with his eyes but also with his protesting feet. Visiting a museum takes time and while the visitor takes his time it will be more difficult for his brain to take in new impressions, if the rest of his bodily organism is crying out for attention. Benches with restful backs are a great necessity in a museum.

By courtesy *Amer. Mus. Nat. Hist., New York.*

NEW REPTILE HALL, AMERICAN MUSEUM OF NATURAL HISTORY, NEW YORK, SHOWING 'BUILT-IN' GROUPS.

By courtesy *Amer. Mus. Nat. Hist., New York.*

MODEL OF NEW HALL OF AFRICAN MAMMALS, AMERICAN MUSEUM OF NATURAL HISTORY, NEW YORK.

The supply of seating is a necessity which is quite often made conditional on available space, but if the comfort of the visitor is to be seriously considered, then the provision of seating accommodation must be made an essential feature in the planning of a gallery.

At the Altona Museum, Hamburg, I saw a space beneath a window between two show cases effectively used for a seat. The second source of fatigue is eye strain, caused firstly because the objects shown are placed either too high above or too low below the level of the eyes, secondly because the exhibits are placed too far from the eyes and thirdly because objects are placed in long monotonous rows.

The structure and design of museum show cases in which museum exhibits are shown are an important factor in helping to remove many of these disadvantages.

The older type of show cases were characterized by their heavy

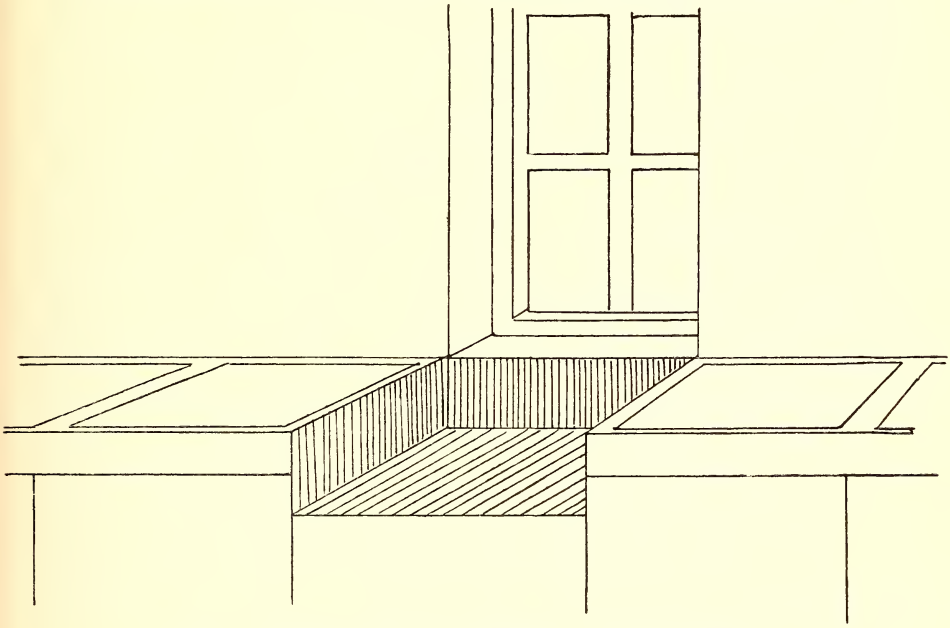


FIG. 1. WINDOW SEAT FOR VISITORS, ALTONA MUSEUM.

wooden frames, their ornate dust-catching design, abnormal length, height and depth, low bases, horizontal sashes obstructing the view and hinged or sliding doors. All of these features were a disadvantage from the visitors' view point. The modern museum case is distinguished by its narrow framework, reduced length, depth and height, its relatively high base which does away with the necessity for stooping, its large area of plate glass, no obstructing sashes and easily removable knock-down sides instead of hinged or sliding doors.

All museum cases may be classed under two headings, i.e., cases in which the exhibits are shown on a horizontal surface (horizontal or desk or table cases) and cases in which the exhibits are shown

on a vertical surface (vertical or wall cases) a comparison of the advantages of the two types yields the following results :—

Vertical case.	*Horizontal case.*
Maximum of exhibition space with minimum or floor area.	Maximum floor space with minimum exhibition area.
Clean glass (vertical glass is rarely touched by the visitor).	Soiled glass (horizontal glass is leaned upon and touched by every visitor).
Comfort for the visitor.	Discomfort, the body must be bent at a fatiguing angle to see the exhibits.
Well and evenly lighted objects, absence of eye-strain.	Visitor obstructs the light as he leans over the case.
Adaptable for any kind of object.	Can only be used for small objects.

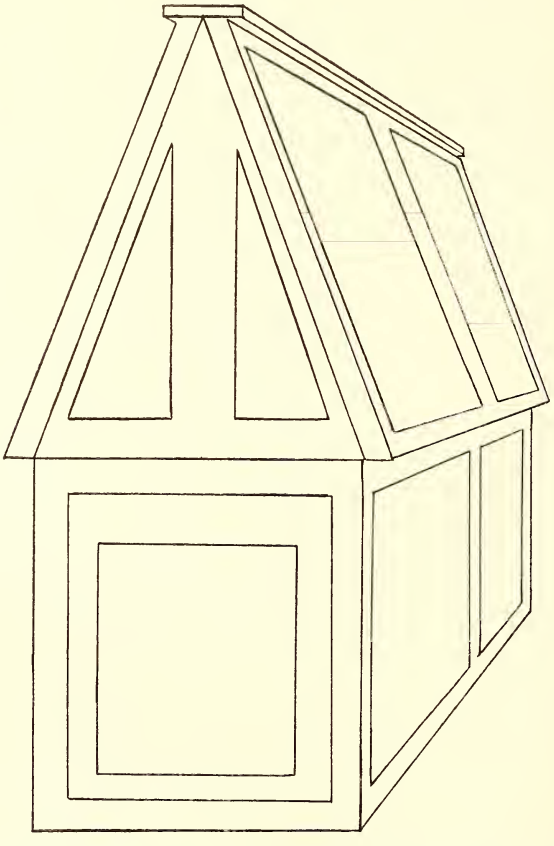


FIG. 2. TYPE OF DESK CASE IN USE IN THE GEOLOGICAL GALLERY, SOUTH KENSINGTON.